PLANET
Networking & Communication

8-Port KVM Switch

KVM-800

User's Manual

PC/Mac/Sun
Multi Platform

TABLE OF CONTENTS

Chapter 1
Introduction

Thank you for purchasing PLANET KVM switch. KVM switch can save your MONEY, TIME, SPACE, EQUIPMENT and POWER.

The KVM-800 allows you to control 8 different PCs using just one keyboard, monitor and mouse. Eight KVM-800 switches (banks) can be daisy-chained together to control up to 64 PCs by single console. Two buttons on the front panel allow you to select the switch(bank)and port. The on-screen display (OSD) feature provides a friendly interface for naming and selecting a specific PC. Furthermore, not only support computer with PS/2 interface. iMAC, Power MAC and Sun Microsystems with only USB port can also be connected through PLANET's USB-PS2 adapter and control by PS/2 keyboard and mouse. It's the perfect choice for server room, Internet or testing site where need to manage multiple computers efficiently and easily.

1.1 Features

- Rack mount size design
- Support Microsoft Intellimouse, Microsoft Intellimouse Explorer, Logitech Net Mouse or the other fully compatible MS mouse
- Daisy Chain up to 7 additional units to control up to 64 computers from single console
- Support DOS, Win3.X, Win95/98/98SE/2000/ME/XP, WinNT, Netware, SCO Unix, HP Unix, Linux
- On Screen Display (OSD) supported – provides the user

a visual interface to name and select computers

- Hot Plug - Add PCs or Remove Connected PCs for Maintenance without Powering Down the KVM switch or PCs
- Very High Video Quality - Up To 1920X1440, Bandwidth: 200MHz
- No Software Required - easy PC selection via On Screen Display Manual, Push Buttons, Hot Keys
- Support eight characters password protection and search PC server name
- Auto Scan Mode for monitoring PCs and flexible Scan time from 5~99 seconds
- Keyboard status restored when switching PCs
- LED Display for easy status monitoring
- Buzzer sound for switching port confirmation.
- Using Standard Keyboard, VGA, Mouse cable.
- Built-in one extra daisy chain port and no waste any PC port
- No DIP switch setting needed and auto detect daisy chain bank

1.2 Package Contents

8 port KVM Switch	1 PCS
User's Manual	1 PCS
AC to DC Power Adapter	1 PCS
Rack Mount Kit	1 SET
Daisy Chain Cable	1 SET

1.3 Technical Specifications

Model No.	KVM-800
PC Port	8
Console Port	1
Daisy Chain Port	1
PC Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
Console Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
Daisy Chain Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
PC selection	On Screen Display Menu, Hot Key, Push Button
7 segment LED	One Bank LED, Two PC Port LEDs
On Screen Display Control	Yes
Scan Intervals	5~99 Sec.
Keyboard Emulation	PS2
Mouse Emulation	PS2
VGA Resolution	Up to 1920X1440
Bandwidth	200MHz
Daisy Chain MAX Level	8 levels
MAX PC Connection	120
Housing	Metal
Power Adapter	DC 12V 1A or DC 9V 1A
Operation Temperature	0 ~ 40□ (32 ~ 104Degree F)
Storage Temperature	-20 ~ 60□ (-4 ~ 140 Degree F)
Humidity	0~80% RH, Non-Condensing
Size	19” Rack Mount / 1RU
Weight (kg)	2.3
Dimension (mm)	410(L) X 172(W) X 45(H)

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Chapter 2
Installation

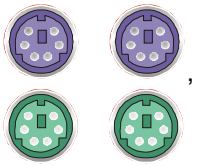
2.1 System Requirements

Specifications:

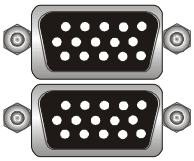
Model No.	8 port KVM Switch
Console side	One VGA Monitor One PS/2 Keyboard One PS/2 Mouse
Computer side	8 HDB 15 pin male to male VGA cables 8 PS/2 cables male to male for Keyboard 8 PS/2 cables male to male for Mouse
Optional	USB-PS/2 adapter for multi-platform PC / iMAC / Sun

2.2 Cable Diagrams

PS/2 Cable:
Mini Din 6 pin Male to Male



VGA Cable:
HDB15 pin Male to Male

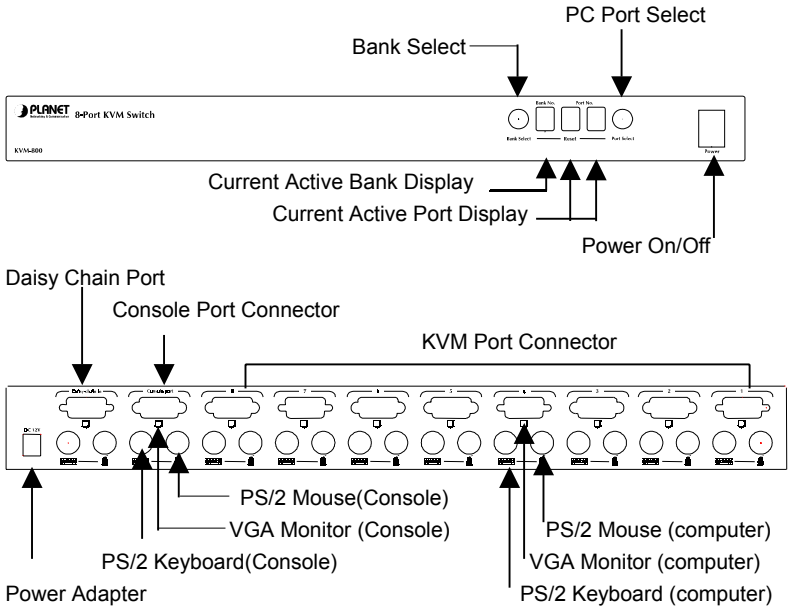


AT to PS/2 keyboard adapter: (Optional)
Din 5 pin Male to Mini Din 6 pin Female

PS2 to DB9 adapter (Optional)
Mini Din 6 pin Female to DB 9 pin Female

2.3 Product Details

Front Panel & Rear Panel of 8 port KVM Switch:



2.4 Hardware Installation

Before installation, please make sure all of peripherals and computers have been turned off.

Step 1 Rack Installation

Find a convenient place to put your KVM Switch. Its 19” rack mount form factor makes it ideal stackable on 19” rack. When stacking to a rack, attach the included brackets to the sides of the KVM Switch. Take note of the length of your cables so that your computers, KVM Switch, keyboard, mouse and monitor are distanced properly.

Step 2 Connecting Monitor to the KVM Switch

Connect the monitor to the KVM Switch. Using the attached cable, or the one included with your monitor, connect it to the HDDB-15 female port on the back of the KVM unit labeled with the monitor symbol at the CONSOLE port connector.

Step 3 Connecting Keyboard to the KVM Switch

Connect the keyboard and mouse to the KVM Switch. If you have an AT type keyboard, you will need an AT to PS/2 adapter.

Step 4 Connecting Mouse to the KVM Switch

Connect the mouse to the KVM Switch.

Step 5 Connecting VGA port of PC(s) to the KVM Switch

Now the PC connections will be made with the monitor (VGA) connections first. Connect a VGA cable (15-pin HDDB Male / Male) with the Male side to both of the PC and the rear panel of the KVM switch to the connector labeled VGA. Repeat this for all PCs.

The rear side of PC

Step 6 Connecting Mouse port of PC(s) to the KVM Switch

Connect the first computer's mouse cable to the KVM Switch. If using a PS/2 cable, connect one end to the PS/2 mouse port on the computer, and the other end to the PS/2 mouse port on the back of KVM Switch. If using a serial mouse cable (optional), connect one end to a DB-9 serial port on the computer, and the other end to the DB-9 serial mouse port on the back of the KVM Switch. If you need Serial DB-9 to PS2 Mini Din 6 pin adapter, please contact your supplier.

The rear side of PC

Step 7 Connecting Keyboard port of PC(s) to the KVM Switch

Connect the first computer's keyboard cable to the KVM Switch. Using another PS/2 cable connect one end to PS/2 keyboard port on the computer, and the other end to the PC1 keyboard port on the back of KVM unit. If your computer has an AT type keyboard port, you will need a PS/2 to AT keyboard adapter.

The rear side of PC

Step 8 Check Again

Double-check all of the connections. You can check the color of keyboard and mouse connector to make sure the keyboard and mouse cables go to the correct ports.

Step 9 Connecting Other PCs

Repeat step 5 to 7 for the remainder of the computers.

Step 10 Connecting KVM Power

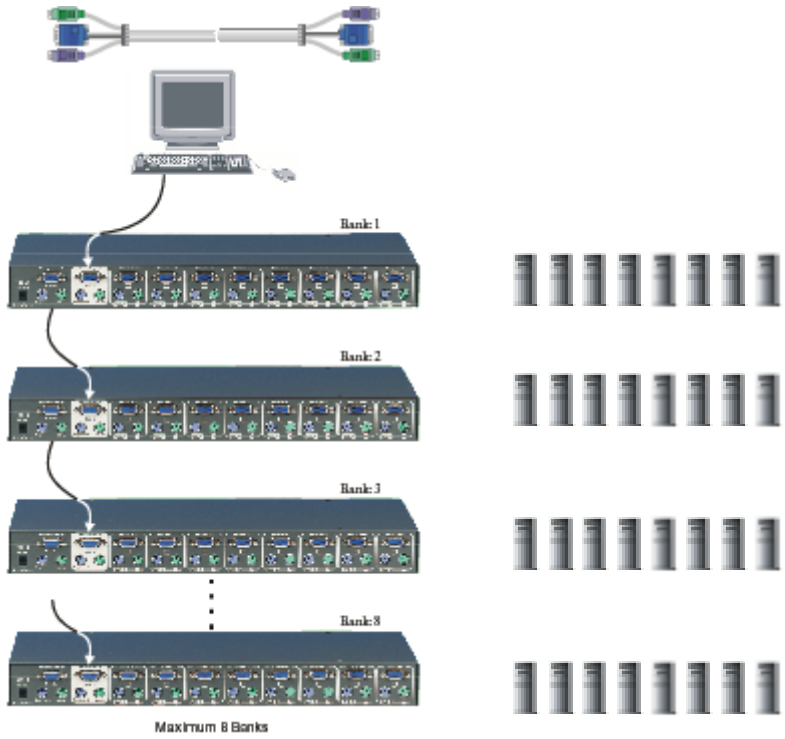
Attach the power supply to the KVM unit and plug the other end into an electrical receptacle. Now you will see the LED for Port 1 light up, and you will hear a beep. Switch on your monitor.

NOTE:
Please be reminding to plug in power adapter. Although the PCs connected to KVM Switch are able to support enough power to the stand alone switch, KVM Switch still needs a power adapter for daisy chain more banks. If you forget to plug in power adapter on the status of daisy chain, it may cause the unexpected status occurred.

2.5 Daisy Chain Connection Diagram

Please use the bundle 3 feet 3-in-one daisy chain Cable Kit to daisy chain the KVM Switch.

A. Connect Keyboard, Mouse and Monitor to the console port (white color block) of bank 1 KVM switch.
B. Use one end of 3-in-one Cable Kit to connect the daisy chain port of bank 1 and the other end for the console port (white color block) of bank 2 KVM switch.
C. Please repeat item B to daisy chain more bank as you want. But, the maximum daisy chain bank is eight levels.
D. Before chaining the slave bank up to six banks, you need a VGA extender (Max. 100 feet) between the fifth bank and the sixth bank to enhance the VGA signal.



2.6 Hot Plug

The KVM Switch supports “Hot Plug“ function for easy addition or removal of PCs. The user can arrange or maintain PCs as follows:

a. A PC can be disconnected and reconnected to the same or different port of the KVM unit without having to power it off as long as it is not the Daisy-chain port or pass through port.
b. You may unplug the mouse or the keyboard from the console port and plug it back in at any time.

NOTE:
Some O.S. (Operation Systems) like SCO Unix are unable to support " Hot Plug " function. If you apply "Hot Plug" to this kind of O.S., it will cause unpredictable behavior or shut down the PC. Before attempting to use " Hot Plug " , please make sure your O.S. and software driver supports the "Hot Plug" function.

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Chapter 3
Operation

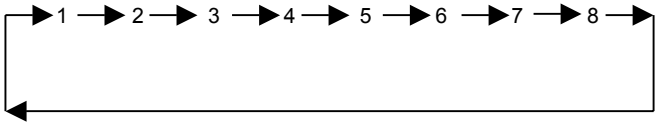
3.1 Password Protection

When you power on KVM switch, it will ask you the password, **the default password is eight zero –“ 00000000 “**. Please key in eight zero and enter the same value at retype field.

Note: Before you are not familiar with the operation of OSD menu, please don’t change the password – i.e. keep default eight zero (00000000) value. Otherwise, if you have set the password and unfortunately forget the password, you need send it back to your distributor for maintaining the password.

3.2 Selecting PC through Push Buttons

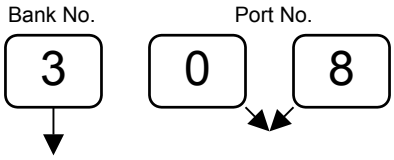
8 port KVM Switch



Example:

To access a computer attached to Port 8 of the third Bank.

You can press Bank Select to choose the Bank No. and Port Select to choose Port No.



Bank Status **Port Status**

7-Segment LED Indication  **:**

You can press the button in order like mentioned-above diagram.

When you select one of eight PC ports and this PC is shut down or this PC port is disconnected to the PC, the selected port LED will flash. When you select one of eight PCs ports and this PC is powered on, the selected port LED is lit.

Reset Button (Bank Select and Port Select **):**
To press both “Bank Select” button and “Port Select” button of master bank simultaneously can reset KVM switch. This reset action will not only return KVM switch back to initial state, but also re-check all of slave banks which connected to master KVM Switch.
If you add a new KVM Switch as a slave bank, please use reset button of master KVM Switch to automatic assign a new ID to it. You can view this new slave bank go through OSD menu. The KVM Switch as a slave bank does not be reset by reset command.

3.3 Selecting PC through Hot Key

You can also conveniently command KVM switch by switching ports through simple key sequences. To send commands to KVM switch, **the “SCROLL LOCK” key must be pressed twice within 2 seconds.** You will hear a beep for confirmation and the keyboard is in hot key mode. If you have not pressed any key in hot key mode within 2 seconds (It means to key in any key follows up “Scroll Lock” “Scroll Lock” key), the keyboard will be back to Operation System control state.

Below are the different hot key commands:

This combination				Does This
Scroll Lock	Scroll Lock	↑	=	Previous Channel

Scroll Lock	Scroll Lock	↓	=	Next Channel (Note: You can also press “up arrow key” or “down arrow key” to speed up selecting the destination port)
Scroll Lock	Scroll Lock	Page Up	=	Previous Bank
Scroll Lock	Scroll Lock	Page Down	=	Next Bank
Scroll Lock	Scroll Lock	Bank 0~8 Port 0 0~8	=	PC Selection
Scroll Lock	Scroll Lock	B	=	Beeper (Note: The default Beeper function is ON)
Scroll Lock	Scroll Lock	S	=	Auto Scan
Scroll Lock	Scroll Lock	R	=	OSD default value (Note: 1.ROM re-flash command need take 1~3 minutes. 2.Not including password)

Scroll Lock	Scroll Lock	F	=	Search the same PC name (Note: Search PC name starting from 1st PC port)
Scroll Lock	Scroll Lock	Space Bar	=	On Screen Display Menu

Example:

A. To access a computer attached to Port 5 of the fifth Bank.

You can press through hot key as below:

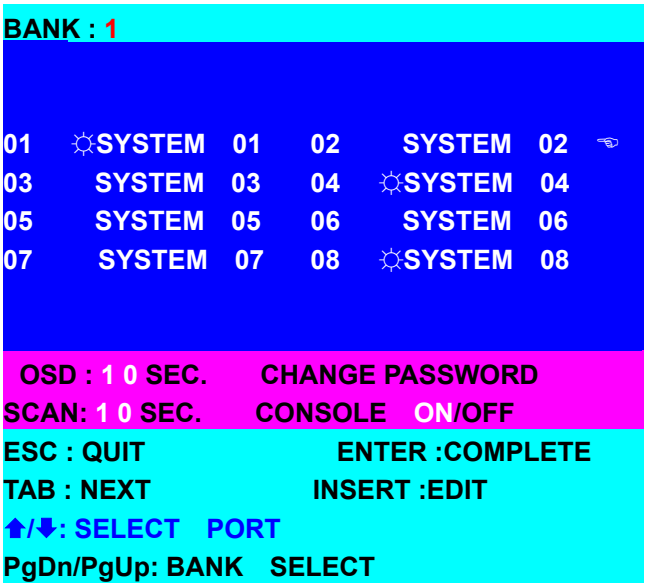
Scroll Lock + Scroll Lock + 5 0 5

B. To access a computer attached from Bank 3 to Bank 4, You can press through hot key as below:

Scroll Lock + Scroll Lock + Page Down

3.4 On Screen Display Operation

When you pop up the OSD menu window go through the hot key, you will see the following small window on your monitor.

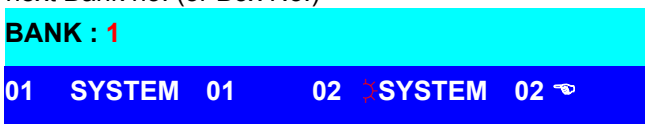


a. The 1ST line bar is Bank no.

b. The 2nd block is your PC system name list. You will find the system number list from 01 to 08. You can define your PC name in maximum 8 characters. The factory default of 8 port KVM switch is from “SYSTEM 01”, “SYSTEM 02”,…, “SYSTEM 08”. Besides, the sun symbol “ ☼ “ near to the PC name represents the PC system is powered on.

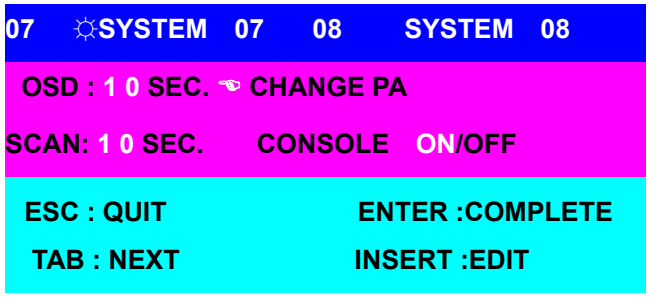
c. Use up arrow key “ ↑ “ or down arrow key “ ↓ “ to select port for destination PC name. After you have selected the PC port already, you can press the ENTER Key to switch the PC port you want immediately

d. Use “ PgUp “ key or “ PgDn” key for selecting previous or next Bank no. (or Box No.)



e. Press “INS” key for editing PC name. After finishing the edit, please press “ Enter “ key for saving information.

f. Use “Tab “ key to select items like Bank, OSD, SCAN, CHANGE PASSWORD, CONSOLE ON/OFF, etc…

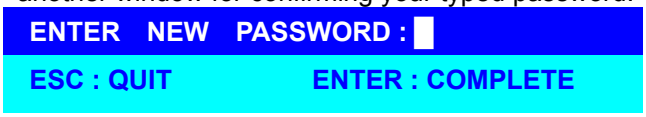


g. The “ OSD: 10 SEC” means that the OSD windows display or PC system name exists 10 sec. on your monitor. You can modify it from 05 sec to 99 sec. The factory default value is 10 sec..

h. The “ SCAN TIME” means that scan interval from one PC port to next PC port. The default SCAN time is 10 sec and the maximum scan time is 99 sec.

i. The “ CHANGE PASSWORD” is for user to avoid all PC systems to be intruded by the other person. The default password is 8 digits “ 00000000 “.

There is an enter password window showed out when you select this item and then press the Enter. The maximum password is eight digits. After you key in the password already and press the Enter key, there is another window for confirming your typed password.



You need to retype the password again for rechecking your previous key-in password is matched or not.

j. The " CONSOLE ON/OFF " means to manage the console of KVM switch. If you select " CONSOLE ON ", it means that any user can use the console. If you select " CONSOLE OFF "(factory default OFF state), it means that any user will not be allowed to use the console unless you enter the password. When you enter the password already and pass the KVM switch authentication, the CONSOLE will be set to ON. After you finish using KVM switch, please don't forget to set up CONSOLE ON state to OFF state. Besides, if current CONSOLE is ON state and you reset KVM switch, the CONSOLE will be set up ON state back to OFF state.

k. When you finish the set up of PC name and get out of OSD setting mode, you will find the PC name showed at the up-left corner of monitor. Now, you can use ESC key to clear the message right away if you don't need it.

l. If you want OSD returning back to factory default value, you can execute "SCROLL LOCK", "SCROLL LOCK" , "R" keys in order. The Seven segment LEDs on the front panel will be flashed during the refresh process.

When the OSD value back to default setting, the seven segment LEDs on the front panel will stop flashing.

Chapter 4
Troubleshooting

1. Ensure that all cables are well seated. Label all of cables with the number for each respective computer to avoid confusion.
2. The recommended VGA cable distance is 5 meters maximum without ghosting and degradation. Normally, the cable length is based on driver capacity of your VGA card. If you need longer VGA cable, please use VGA extender (MAX. 100 feet) to accomplish your applications.
3. The recommended PS/2 cable distance is 5 meters maximum. Normally, the cable length is based on driver capacity of your motherboard PS/2 port. If you need longer PS/2 cable, please use PS/2 extender (MAX. 100 feet) to accomplish your applications.
4. The Power Jack polarity is center positive and the power adapter need to be DC12V, 1A or DC9V, 1A.
5. Don't press any keys on the keyboard while the selected computer is booting up. Otherwise, it might cause the keyboard error or keyboard is not detected at PC side.
6. The computer boot up fine, but keyboard does not work
   - Make sure the keyboard works when directly plugged into the computer.
   - Try a different keyboard, but use only 101, 102 or 104-key keyboard.
7. The computer boot up fine, but mouse does not work
   - The Mouse is not detected during PC boot up.
   - Make sure the mouse works when directly plugged into the computer.
   - Make sure the mouse is a true PS/2 mouse. A combo mouse will work just as long as it is set for PS/2 mode

with the correct adapter. Try a different mouse.

- Avoiding moving the mouse or pressing the mouse buttons when switching ports.
- Avoiding switching ports during shutting down the PC process.
- When you switch one PC port to another PC port, the best scan time setting need to be set to 5 sec. or more. Normally, the VGA monitor change one resolution mode to another will take one or two seconds. So, the scan time is not recommended to below 5 seconds.

8. The power switch is off, but the switch still works fine or power adapter is unplugged from the switch, but the switch still works fine.

   KVM Switch unit draws the power source from power adapter and all PC's PS2 port. Some PC's PS2 port can support enough power for the switch, but some PC's PS2 port (like laptop, notebook computer…etc.) is unable to supply enough power for the switch. In order to make sure the system can work steadily, please do not set power switch to off state or remove the power adapter from the switch.

   Although the PCs connected to KVM Switch unit are able to support enough power to the stand alone switch, KVM Switch unit still needs a power adapter for daisy chain more banks.

9. If forgetting the " password " you typed, please contact your supplier.

CERTIFICATES

FCC

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Including interference that may cause undesired operation.

CE – Certificate

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B

EM-KVM8V1